



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
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D2893-1**Job Sheet 211587****Part No:** D2893-1**Job Qty:** 8 pcs**Part Name:** Support**Part Weight:** 0 lbs**Status:** New**Priority:** Medium**Job Created:** 7/21/20**Job Tracking No:****Due Date:** 10/8/20**Created By:** Marie Lajeunesse**Type:** Stock**Description:**

Note: DWG D2893 REV D IPP: C 02.11.26 Reformat; Added P/O KJ IPP D 06.04.19 removed alodine EC IPP Rev:E
Added priming as per Rev B 07-04-30 JLM IPP F 08.03.19 Re-format EC verified by: DD IPP Rev:G 08-05-15
add QC14 DD verified by:EC IPP Rev:H 11.08.04 as per dwg rev.C ver:ECDWG /IPP Rev. I 19.10.01 New
issue DP Verify DD

Ship Via:**Bill of Materials****Job Routing**

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	HAAS 4 Axis	8 pcs	10/7/20		2.00	20.00	HAAS - 1		
							HAAS - 2		
							HAAS - 3		
							HAAS - 4		J.L. 20-08-14
120	QC 8	8 pcs	10/7/20		0.00	0.00	QC 8 - 12		
							QC 8 - 14		
							QC 8 - 17		
							QC 8 - 20		J.L. 20-09-08
							QC 8 - 25		
							QC 8 - 3		
							QC 8 - 32		
							QC 8 - 33		
							QC 8 - 35		
							QC 8 - 39		
							QC 8 - 4		
							QC 8 - 44		
							QC 8 - 45		
							QC 8 - 49		
							QC 8 - 58		
							QC 8 - 8		
							QC 8 - 9		
							QC 8 - 68		
							QC 8 - 67		
							QC 8 - 1 (A)		
							QC 8 - 47		
							QC 8 - 40		
							QC 8 - 52		
							QC 8 - 23		
							QC 8 - 57		



Dart Aerospace Ltd.
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CANADA
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www.dartaerospace.com

Container No: S294180**Part:** D2893-1**Job No:** 211587**Serial No/Batch:** S294180**Revision:** D**Inspector:****Exp Date:****Instructions:** Various STC's

Date: 08/14/20

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					QC 8 - 76	
					QC 8 - 61	
					QC 8 - 66	
					QC 8 - 73	
					QC 8 - 82	
130	Crosstubes - 2 - B4B	8 pcs	10/8/20	0.00 1.33	Crosstubes - 1 - B4B	
					Crosstubes - 2 - B4B	
					Crosstubes - 3 - B4B	DAS
					Crosstubes - 4 - B4B	.87 SEP 10 2020
140	QC 3	8 pcs	10/8/20	0.00 0.00	QC 3 - 10	9-89
					QC 3 - 13	
					QC 3 - 15	
					QC 3 - 17	
					QC 3 - 18	
					QC 3 - 2	
					QC 3 - 28	
					QC 3 - 3	
					QC 3 - 30	
					QC 3 - 34	
					QC 3 - 36	
					QC 3 - 41	
					QC 3 - 51	
					QC 3 - 58	
					QC 3 - 59	DAS
					QC 3 - 68	31
					QC 3 - 9	9-89
					QC 3 - 40	SEP 10 2020
					QC 3 - 19	
					QC 3 - 43	
					QC 3 - 24	
					QC 3 - 61	
					QC 3 - 81	
					QC 3 - 82	
					QC 3 - 87	
170	Packaging 3-1 - Stock - B4B	8 pcs	10/8/20	0.00 0.00	Packaging 3 - 1 - B4B	
					Packaging 3 - 2 - B4B	
					Packaging 3 - 3 - B4B	
					Packaging 3 - 4 - B4B	
					Packaging 3 - 5 - B4B	
					Packaging 3 - 6 - B4B	
					Packaging 3 - 7 - B4B	
					Packaging 3 - 8 - B4B	
					Packaging 3 - 9 - B4B	
					Packaging 3 - 10 - B4B	
					Packaging 3 - 11 - B4B	
					Packaging 3 - 12 - B4B	
					Packaging 3 - 13 - B4B	
					Packaging 3 - 14 - B4B	
					Packaging 3 - 15 - B4B	
					Packaging 3 - 16 - B4B	
					Packaging 3 - 17 - B4B	
					Packaging 3 - 18 - B4B	
					Packaging 3 - 19 - B4B	
					Packaging 3 - 20 - B4B	
					Packaging 3 - 21 - B4B	
					Packaging 3 - 22 - B4B	DAS
					Packaging 3 - 23 - B4B	84
					Packaging 3 - 24 - B4B	9-89
					Packaging 3 - 25 - B4B	

				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
				Packaging 3 - 37 - B4B	
180	QC 21 - SA	8 pcs	10/8/20	0.00 0.00	QC 21 - SA - 21
					QC 21 - SA - 70
					Broussard
					QC 21 - SA - 9
					QC 21 - SA - 77

LG050
DAS
21
SEP 14 2020

Part Op 100 - (HAAS CNC Vertical Machine) 1-Machine as per Folio FA081
 Descriptions: 120 - (QC8- Inspect parts - second check)
 130 - (Crosstubes) Per note 8 on page 1 of dwg D2893, Prep inner concave surface of support and use DT10660 apply 3M Scotch-Weld as per dwg. \$ 206999
 140 - (QC3- Inspect Part Finish)
 170 - (Identify as per dwg & Stock Location: _____) LOCATION : LG050
 180 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
DSK078	D2893-1 Turning Detail	4 pcs (.5 ea)	100-HAAS 4 Axis	528568 x4

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-HAAS 4 Axis	DSK078	4	8	0

Part Specifications					
Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	2.750 Support	2.985Inches + 0.020 - 0.000	3.005 2.985		
2	2.750 Support	0.440Inches + 0.020 - 0.000	0.460 0.440		
3	2.750 Support	0.125Inches + 0.035 - 0.000	0.160 0.125		
4	2.750 Support	0.040Inches + 0.020 - 0.000	0.060 0.040		
5	2.750 Support	0.188Inches + 0.005 - 0.000	0.193 0.188		
6	2.750 Support	0.125Inches + 0.035 - 0.000	0.160 0.125		
7	2.750 Support	0.140Inches + 0.020 - 0.000	0.160 0.140		
8	2.750 Support	1.360Inches + 0.040 - 0.000	1.400 1.360		
9	2.750 Support	0.040Inches + 0.020 - 0.000	0.060 0.040		
10	2.750 Support	1.190Inches + 0.040 - 0.000	1.230 1.190		
11	2.750 Support	0.010Inches + 0.010 - 0.000	0.020 0.010		
12	2.750 Support	0.053Inches + 0.020 - 0.000	0.073 0.053		
13	2.750 Support	0.240Inches + 0.020 - 0.000	0.260 0.240		
14	2.750 Support	2.518Inches + 0.020 - 0.000	2.538 2.518		
15	2.750 Support	84.390Inches + 6.000 - 0.000	90.390 84.390		
16	2.750 Support	0.261Inches + 0.005 - 0.000	0.266 0.261		
17	2.750 Support	0.053Inches + 0.020 - 0.000	0.073 0.053		

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DART AEROSPACE LTD		Work Order: 211587
Description: Ø2.750 Support		Part Number: D2893-1
Inspection Dwg: D2893	Rev: D	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	0.125	0.160		0.147	0.147	0.147	0.147	0.147
AB	0.040	0.060		0.050	0.050	0.050	0.050	0.050
AC	Ø0.260	Ø0.266		0.261	0.261	0.261	0.261	0.261
AD	Ø0.187	Ø0.193		0.188	0.188	0.188	0.188	0.188
AE	0.240	0.250		0.250	0.250	0.250	0.250	0.250
AF	1.347	1.407		1.373	1.372	1.372	1.371	1.372
AG	1.200	1.240		1.204	1.212	1.210	1.209	1.213
AH	0.147	0.167		0.159	0.160	0.162	0.162	0.160
AI	2.985	3.005		3.005	3.004	3.005	3.004	3.001
AJ	0.400	0.500		0.450	0.450	0.450	0.450	0.450
AK	4.930	4.990		4.960	4.960	4.955	4.958	4.956
AL	0.125	0.160		0.144	0.144	0.144	0.144	0.144
AM	R0.053	R0.073		0.063	0.063	0.063	0.063	0.063
AN	R0.240	R0.260		0.250	0.250	0.250	0.250	0.250
AO	R0.021	R0.041		0.031	0.031	0.031	0.031	0.031
AP	0.150	0.180		0.171	0.171	0.172	0.174	0.174
AQ	0.053	0.073		0.063	0.063	0.063	0.063	0.063
AR	2.302	2.322		2.322	2.322	2.322	2.322	2.322
AS	0.140	0.160		0.149	0.150	0.149	0.150	0.147
AT	0.040	0.060		0.052	0.052	0.050	0.050	0.053
Accept/Reject								

Measured by: J.C.L.	Date: 20-08-14
Audited by: J.L.	Date: 20-09-08
Preliminary Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	
D	12.07.31	Dwg Rev updated	KJ	
E	20.02.10	Dwg Rev and Dimensions updated.	MG	DP

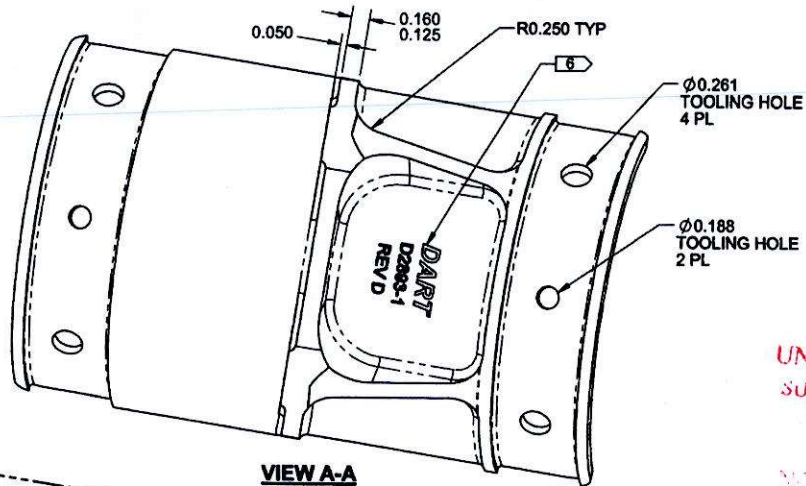
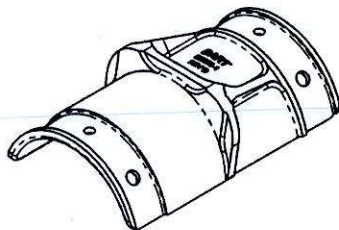
DART AEROSPACE LTD		Work Order: 211587
Description: Ø2.750 Support		Part Number: D2893-1
Inspection Dwg: D2893	Rev: D	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

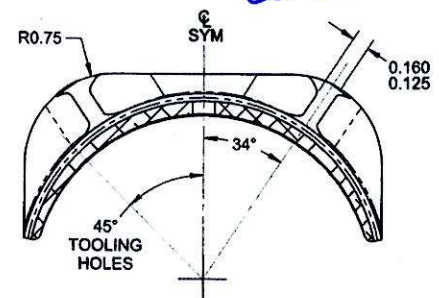
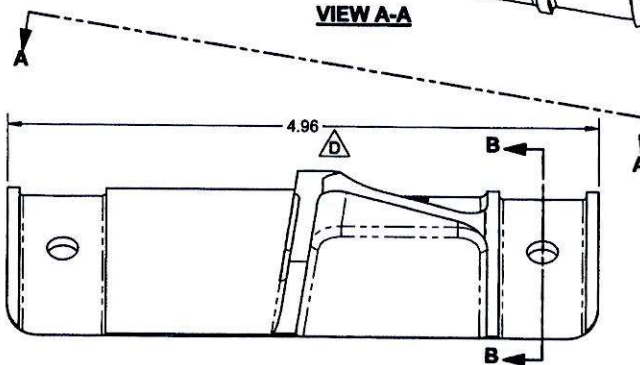
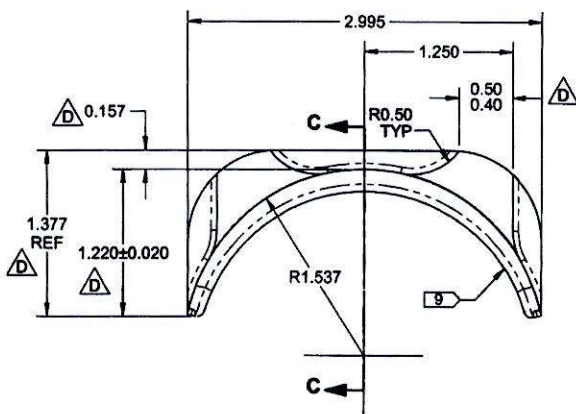
Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
HAAS Section								
AA	0.125	0.160		0.147	0.147	0.147		
AB	0.040	0.060		0.050	0.050	0.050		
AC	Ø0.260	Ø0.266		0.261	0.261	0.261		
AD	Ø0.187	Ø0.193		0.188	0.188	0.188		
AE	0.240	0.250	0.260	0.230	0.230	0.230		
AF	1.347	1.407		1.375	1.374	1.373		
AG	1.200	1.240		1.210	1.210	1.210		
AH	0.147	0.167		0.163	0.164	0.154		
AI	2.985	3.005		3.001	3.003	3.003		
AJ	0.400	0.500		0.450	0.450	0.430		
AK	4.930	4.990		4.956	4.960	4.960		
AL	0.125	0.160		0.144	0.144	0.144		
AM	R0.053	R0.073		0.063	0.063	0.063		
AN	R0.240	R0.260		0.250	0.250	0.230		
AO	R0.021	R0.041		0.031	0.031	0.031		
AP	0.150	0.180		0.173	0.173	0.171		
AQ	0.053	0.073		0.063	0.063	0.063		
AR	2.302	2.322		2.322	2.322	2.322		
AS	0.140	0.160		0.149	0.149	0.148		
AT	0.040	0.060		0.048	0.048	0.054		
Accept/Reject								

Measured by: J.C.C.	Date: 20-08-14
Audited by: S.L.	Date: 20-09-08
Preliminary Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
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C	08.04.21	Reformat	KJ/JLM	
D	12.07.31	Dwg Rev updated	KJ	
E	20.02.10	Dwg Rev and Dimensions updated.	MC	DP



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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
211587 MLJ
2007-21



D2893-1 SUPPORT, 212 FWD

SECTION B-B

NOTES:

- 1) MATERIAL: 17-4 PH STAINLESS STEEL, H900 OR H925 CONDITION
MIN UTS = 170 KSI (38 HRC)
(REF DART SPEC. D6104)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: DART LOGO, PART NUMBER, AND REVISION IN THIS AREA WITH 0.125 HIGH LETTERING
0.010-0.020 DEEP WITH MIN TOOL RAD OF R0.010 PER DART QSI 044 6.3
- 7) WEIGHT: 0.73 lbs
- 8) MACHINE INNER SURFACE PROFILE AND NON-DIMENSIONS FEATURES PER D2893-1-REV D STEP
- 9) FOR THE ENTIRE INNER CONCAVE SURFACE: ABRASE SURFACE WITH 400-GRIT SANDPAPER. REMOVE RESIDUE WITH MEK (OR EQUIVALENT).
APPLY 0.030" THICK LAYER OF 3M SCOTCH-WELD 2216 B/A ADHESIVE TO MATING SURFACE OF SUPPORT. ALLOW TO CURE FOR 24 HOURS.

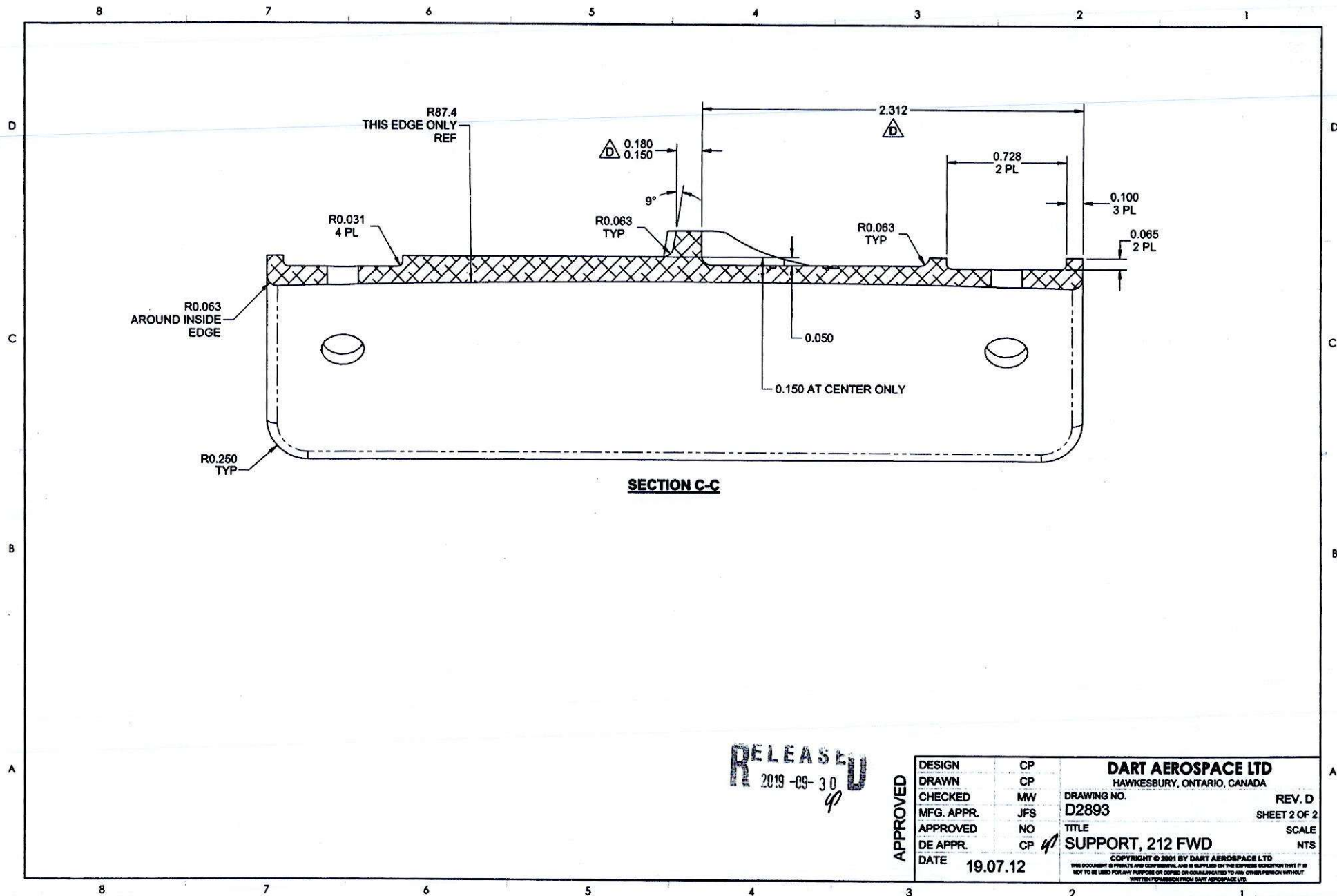
RELEASED
2019-09-30
ECN 19-024

D	REDRAW IN SW, CHG INNER SURFACE PROFILE, ADD REV TO TEXT, 3M 2216 NOW 0.030 THICK, DIMS AS MFD	CP	19.07.12
C	RMV FINISH, ADD 3M 2216, ADD H925 MAT'L OPTION	CP	11.07.15
B	UPDATE DIMS AS MFG, PRIME INSIDE	PH	07.03.13
A	NEW ISSUE	CP	01.01.10
REV.	DESCRIPTION	BY	DATE
DESIGN	CP		
DRAWN	CP		
CHECKED	MW		
MFG. APPR.	JFS		
APPROVED	NO		
DE APPR.	CP		
DATE	19.07.12		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D2893
TITLE SUPPORT, 212 FWD
REV. D
SHEET 1 OF 2
SCALE NTS

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Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread ☐		FAULT CATEGORY Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread ☐			
		Other/Details:			